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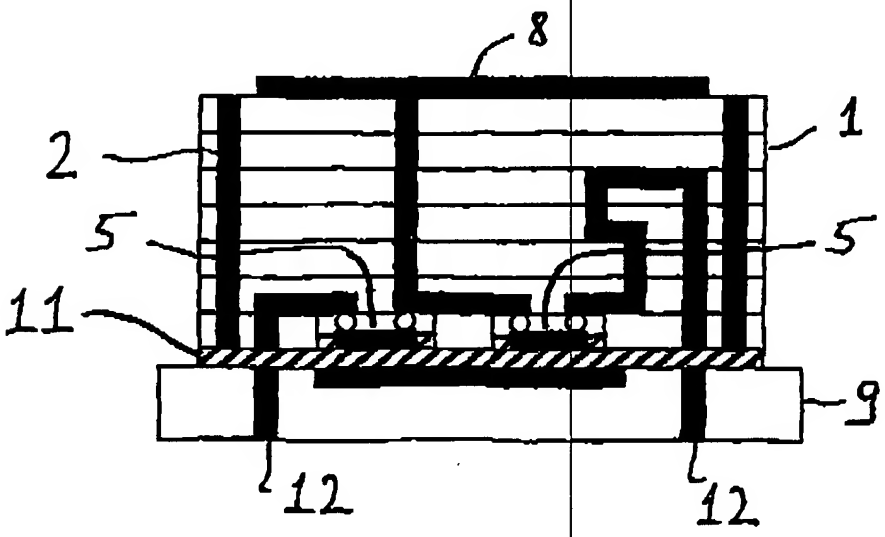
As printed

(54) Title: MULTICHIP CIRCUIT MODULE AND METHOD FOR THE PRODUCTION THEREOF

(54) Bezeichnung: MULTICHIP-SCHALTUNGSMODUL UND VERFAHREN ZUR HERSTELLUNG HIERZU



(57) Abstract: The invention relates to a multichip circuit module comprising a main board (9), at least one carrier substrate (1) mounted on said main board (9) and electrically contacting said main board and at least one semiconductor chip (5) arranged on the carrier substrate (1) that is electrically contacted with the carrier substrate (1). The carrier substrate (1) has at least one cavity (4) on an assembly surface (3) for receiving at least one semiconductor chip (5), wherein the cavity (4) has connecting contacts (6) for associated bumps (7) of the semiconductor chip (5), the at least one semiconductor chip (5) is mounted with the bumps (7) in the connecting contacts (6) using the flip-chip-technique, the assembly surface (3) of the carrier substrate (1) is placed on a contact surface (10) of the main board (9) and a filling material(11) is provided between the contact surface (10) of the main board (9) and the assembly surface (3) of the carrier substrate (1).

(57) Zusammenfassung: Bei einem Multichip-Schaltungsmodul mit einer Hauptplatine (9) mindestens einem auf der Hauptplatine (9) montieren und mit der Hauptplatine (9) elektrisch kontaktierten Trägersubstrat (1) und mindestens einem Halbleiterchip (5) auf dem Trägersubstrat (1), der mit dem Trägersubstrat (1) elektrisch kontaktiert ist, hat das Trägersubstrat (1) mindestens eine Kavität (4) an einer Montageoberfläche (3) zur Aufnahme mindestens eines Halbleiterchips (5), wobei in der Kavität (4) Anschlusskontakte (6) für zugeordnete Bumps (7) des Halbleiterchips (5) vorgesehen sind, der mindestens eine Halbleiterchip (5) in Flip-Chip-Technik mit den Bumps (7) an den Anschlusskontakten (6) montiert ist, und die Montageoberfläche (3) des Trägersubstrates (1) auf eine Kontaktoberfläche (10) der Hauptplatine (9) aufgebracht ist, und ein Füllmaterial (11) zwischen der Kontaktoberfläche (10) der Hauptplatine (9) und der Montageoberfläche (3) des Trägersubstrates (1) vorgesehen ist.

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